## AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): ~~[C1]~~ An object detecting method comprising:

a step of irradiating beams in a plurality of directions by switching an irradiation direction of a mainlobe of an antenna by stages;

a step of receiving an echo from a detection object obtained in the mainlobe or a sidelobe in each irradiation direction;

a step of finding reflection power intensity in each irradiation direction from the received echo; and

a step of specifying a bearing in which the detection object exists based on a pattern of relative variation of the reflection power intensity in each irradiation direction.

Claim 2 (currently amended): ~~[C2]~~ The object detecting method according to claim 1, comprising a step of finding the reflection power intensity from the received echo without distinguishing between the echo obtained in the mainlobe and the echo obtained in the sidelobe.

Claim 3 (currently amended): ~~[C3]~~ The object detecting method according to claim 1, comprising a step of setting directional characteristics of the antenna such that an angle between a peak of the mainlobe and a peak of a first sidelobe may become almost double of an angle between the peak of the first sidelobe and a peak of a second sidelobe.

Claim 4 (currently amended): ~~[C4]~~ The object detecting method according to claim 1, comprising a step of switching the irradiation direction of the mainlobe such

that a peak angle of the mainlobe in the next irradiation direction may become an angle of a first null point in the previous irradiation direction.

Claim 5 (currently amended): ~~[C5]~~ The object detecting method according to any one of claims 1, comprising a step of dividing a detection region into a plurality of bearings, and storing a pattern of relative variation of reflection power in intensity in each irradiation direction when an object exists in the bearing, as a reference pattern in each bearing; and

specifying a bearing in which a detection object exists by comparing the pattern obtained from the received echo with the reference pattern in each bearing.

Claim 6 (currently amended): ~~[C6]~~ An object detector comprising:

an antenna irradiating beams in a plurality of irradiation directions by switching an irradiation direction of a mainlobe by stages, and receiving an echo from a detection object obtained in the mainlobe or a sidelobe in each irradiation direction;

means for finding reflection power intensity in each irradiation direction from the received echo; and

means for specifying a bearing in which the detection object exists based on a pattern of relative variation of the reflection power intensity in each irradiation direction.

Claim 7 (currently amended): ~~[C7]~~ The object detector according to claim 6, wherein the reflection power intensity is found from the received echo without distinguishing between the echo obtained from the mainlobe and the echo obtained from the sidelobe.

Claim 8 (currently amended): ~~[C8]~~ The object detector according to claim 6, wherein directional characteristics of the antenna is set such that an angle between a peak of the mainlobe and a peak of a first sidelobe may become almost double of an angle between the peak of the first sidelobe and a peak of a second sidelobe.

Claim 9 (currently amended): ~~[C9]~~ The object detector according to claim 6, wherein the irradiation direction of the mainlobe is switched such that a peak angle of the main lobe in the next irradiation direction may become an angle of a first null point in the previous irradiation direction.

Claim 10 (currently amended): ~~[C10]~~ The object detector according to any one of claims 6, comprising means for dividing a detection region into a plurality of bearings and storing a pattern of relative variation of reflection power intensity in each irradiation direction when the object exists in the bearing, as a reference pattern in each bearing, wherein the bearing in which the detection object exists is specified by comparing the pattern obtained from the received echo with the reference pattern in each bearing.